

CLAIMS

What is claimed is:

- 1 1. A computer system comprising:
 - 2 a chassis that encloses at least one microprocessor connected to
 - 3 execute application software as selected by a user, said
 - 4 chassis having a rear wall which faces away from a user
 - 5 during normal use; and
 - 6 an electro-acoustic transducer mounted in said chassis;
 - 7 wherein said transducer is designed for free-space operation.
- 1 2. The computer system of Claim 1, wherein said chassis has an
 - 2 acoustic impedance magnitude, as seen by said transducer, of
 - 3 less than half that of an acoustic suspension box of the same
 - 4 dimensions.
- 1 3. The computer system of Claim 1, wherein said transducer is
 - 2 mounted to said rear wall.
- 1 4. The computer system of Claim 1, wherein said chassis has a
 - 2 front wall that faces a user during normal use; and
 - 3 wherein said front wall has perforations, whereby said front wall
 - 4 is made more acoustically leaky.
- 1 5. The computer system of Claim 1, wherein said transducer utilizes
 - 2 the wall-effect, whereby acoustic spatial impression is
 - 3 improved.
- 1 6. The computer system of Claim 1, wherein said transducer has a
 - 2 Q_{TS} in the range of 0.65 to 0.8.

1 7. The computer system of Claim 1, wherein said transducer is a
2 long-throw transducer.

1 8. The computer system of Claim 1, further comprising a sound
2 card.

1 9. The computer system of Claim 1, further comprising at least one
2 external speaker.

10. A computer system, comprising:
at least one input device and at least one output device;
a main system module which does not include said input and output devices, and which includes therein: at least one microprocessor which is operatively connected to detect inputs from said input device and to send data to said output device, and random-access memory which is connected to be read/write accessible by said microprocessor;
a bus connected to said main system module, and having connections through which additional modules can communicate with said main system module; and
said main system module being mounted in a chassis which has a rear wall which faces away from a user in normal use;
and
a driver mounted in said chassis;
wherein said driver is a free-space driver.

1 11. The computer system of Claim 10, wherein said chassis has an
2 acoustic impedance magnitude, as seen by said driver, of less
3 than half that of an acoustic suspension box of the same
4 dimensions.

1 12. The computer system of Claim 10, wherein said driver has a
2 Q_{TS} in the range of 0.65 to 0.8.

1 13. The computer system of Claim 10, wherein said driver utilizes
2 the wall-effect, whereby acoustic spatial impression is
3 improved.

1 14. The computer system of Claim 10, wherein said driver is
2 mounted to said rear wall.

1 15. The computer system of Claim 10, wherein said driver is a
2 long-throw driver.

1 16. A method of operating a computer system, comprising the steps
2 of:

3 (a.) executing application software in one or more programmable
4 processors which are contained within a chassis, said
5 chassis having a rear wall that faces away from a user
6 during normal use; and meanwhile

(b.) providing at least one audio output to power at least one driver mounted to said chassis, said driver being designed for free-space operation.

1 17. The method of Claim 16, wherein said chassis has an acoustic
2 impedance magnitude, as seen by said driver, of less than half
3 that of an acoustic suspension box of the same dimensions.

1 18. The method of Claim 16, wherein said driver is mounted to said
2 rear wall.

1 19. The method of Claim 16, wherein said driver has a Q_{TS} in the
2 range of 0.65 to 0.8.

1 20. The method of Claim 16, further comprising the step of
2 equalizing an audio signal and providing said signal to said
3 audio output.

1 21. The method of Claim 20, wherein said equalizing step is
2 performed to work in context with a free-space driver.

1 22. The method of Claim 16, wherein said chassis has a front wall
2 that faces a user during normal use, said front wall having
3 perforations, whereby said front wall is made more acoustical-
4 ly leaky.

1 23. The method of Claim 16, wherein said driver utilizes the wall-
2 effect, whereby acoustic spatial impression is improved.

1 24. An audio system, comprising:
2 an acoustically leaky computer chassis, having a rear wall; and
3 a driver;
4 wherein said chassis has an acoustic impedance magnitude, as
5 seen by said driver, of less than half that of an acoustic
6 suspension box of the same dimensions; and
7 wherein said driver is mounted in said rear wall.

1 25. The audio system of Claim 24, further comprising an equalizer.

1 26. The audio system of Claim 25, wherein said equalizer has at
2 least one predetermined stage of fixed equalization for
3 enlarging spatial impression.

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27. The audio system of Claim 25, further comprising gain staging.

1 28. The audio system of Claim 25, wherein said equalizer equalizes
2 an audio signal as if said driver were standing in free space.

1 29. The audio system of Claim 25, wherein said equalizer modifies
2 an audio signal to simulate a predetermined acoustic environ-
3 ment when said signal is played through said driver.

1 30. The audio system of Claim 24, further comprising a sound
2 source.

1 31. The audio system of Claim 30, wherein said sound source is a
2 CD player.

1 32. The audio system of Claim 30, wherein said sound source is a
2 wave table.

1 33. The audio system of Claim 30, wherein said sound source is a
2 speakerphone.

34. The audio system of Claim 30, further comprising gain staging.

35. The audio system of Claim 24, further comprising a sound card.

36. The audio system of Claim 35, further comprising gain staging.

37. The audio system of Claim 24, wherein an apparent origin of a sound is created in a range of 12 to 24 inches in front of a listener's face.

- 1 38. The audio system of Claim 24, further comprising at least one
2 external speaker.
- 1 39. A speaker, comprising:
2 a computer chassis; and
3 a driver mounted to said chassis;
4 wherein said driver has a throw length greater than ten percent
5 of its minimum cone diameter.
- 1 40. The speaker of Claim 39, wherein said driver is a free-space
2 driver.
- 1 41. The speaker of Claim 39, wherein said chassis has an acoustic
2 impedance magnitude, as seen by said driver, of less than half
3 that of an acoustic suspension box of the same dimensions.
- 1 42. The speaker of Claim 39, wherein said chassis has a front wall,
2 said front wall having an acoustic vent.
- 1 43. The speaker of Claim 39, wherein said chassis has a rear wall,
2 and said driver is mounted to said rear wall.
- 1 44. The speaker of Claim 39, wherein said driver has Q_{TS} in the
2 range of 0.65 to 0.8.